

What is claimed is:

1. A process for polymerization of  $\alpha$ -olefin in multi-stage polymerization process and in at least two serially arranged polymerization reactors including a gas phase polymerization reactor, the process comprising;

drawing out polyolefin particles from a polymerization reactor, and

transferring the polyolefin particles into the interior of fluidized bed of a gas phase polymerization reactor of the next stage, and into lower than a half of height from the bottom to the surface of the fluidized bed.

2. The process according to claim 1, wherein  $\alpha$ -olefin is at least one selected from the group consisting of  $\alpha$ -olefins having from 2 to 8 carbon atoms.

3. The process according to Claim 1, wherein transferring into lower than one-fifth of height from the bottom to the surface of the fluidized bed.

4. The process according to Claim 1, wherein the polymerization reactor is a gas phase reactor.

5. The process according to Claim 1, wherein transferring is intermittently transferring.

6. The process according to Claim 5, wherein the intermittent transferring is conducted by opening and closing the valve.